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EXAMINER

NGUYEN, NGOC YEN M

ART UNIT PAPER NUMBER

1754

DATE MAILED: 04/21/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/067,841

Applicant(s)

MAUS ET AL.

Examiner

Ngoc-Yen M. Nguyen

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1754

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 January 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) 7-20 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

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DETAILED ACTION

Applicant's election with traverse of Group I in Paper filed January 29, 2004 is acknowledged. The traversal is on the ground(s) that a search of all the claims would not impose a serious burden on the Office. This is not found persuasive because the search for each of the groups is different from the other.

The requirement is still deemed proper and is therefore made FINAL.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-2, 4-6 are rejected under 35 U.S.C. 102(b) as being anticipated by EP 0 922 671 (using US 6,383,280 as unofficial English translation).

EP '671 discloses a precipitated silica which is characterized by the following physico-chemical parameters:

| | |
|--|---------|
| BET surface area in m ² /g: | 400-600 |
| DBP in g/100g: | 300-360 |
| Compacted density in g/l: | 70-140 |
| Grindometer index in μm: | 5-50 |

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Size distribution index I: < 1.0

This precipitated silica is produced by milling, using a classifier mill or a fluidized bed counterflow mill, a precipitated silica which has the following physico-chemical properties:

BET surface area in m²/g: 400-600

DBP in g/100g: 340-380

Compacted density in g/l: 180-220

"Alpine" sieve residue > 63 μ m wt% 25-60

(note EP '671 pages 3-4, paragraphs [0008] and [0009] or US '280, column 2, lines 1-43).

From Figure 2, the particle size of 95% for Example 2a is less than 20 microns, and for 100%, thus the Alpine sieve residue > 63 microns would be less than 5% as required in the instant claim 1.

The precipitated silica particles can be coated with a polyethylene was emulsion (note EP '671, claim 3 or US '280, claim 1).

Since the product of EP '671 has all the positive limitations of the claimed product, it would inherently have the same wk coefficient as that of the claimed product.

The product of EP '671 anticipates the claimed product.

Claims 1-2, 4-6 are rejected under 35 U.S.C. 102(b) as being anticipated by EP 0 91 986 (using Uhrland et al U.S. Patent 6,180,076 as unofficial English translation).

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EP '986 discloses a precipitated silica, characterized by the following physico-chemical parameters:

| | |
|--|---------------------------|
| BET surface area: | 120-300 m ² /g |
| BDP index | 150-300 g/100g |
| wk coefficient: | <3.4 |
| particle size of the degraded particles: | <1.0 μm |
| particle size of the non-degradable particles: | 1.0-100 μm |

(note claim 1 of EP '986 or claim 1 of US '076).

From the wk coefficient and the Figures 1-5, the product of EP '986 would have the Alpine sieve residue, the particle size distribution and the density within the claimed values.

The product of EP '986 can be modified with organosilanes (note EP '986, paragraphs [0021]-[0027] or US '076, column 3, line 55 to column 4, line 54).

The product of EP '986 anticipates the claimed product.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over EP '986 in view of Wideman (5,883,139).

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EP '986 discloses a silica product as stated above.

EP '986 discloses that the silica product is used filler in vulcanizable mixtures for the production of tires (note paragraph [0028]).

The difference is EP '986 only discloses a precipitated silica, not pyrogenic silica.

Wideman '139 teaches that siliceous pigments may be used in the rubber compound applications, including pyrogenic and precipitated siliceous pigment (silica), although precipitate silicas are preferred.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to produce a silica product having the properties as described in EP '986 by a "flame" process because as suggested by Wideman '139, pyrogenic or precipitated silica can be used as filler for rubber composition.


The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ngoc-Yen M. Nguyen whose telephone number is (571) 272-1356. The examiner is currently on Part time schedule.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Stan Silverman can be reached on (571) 272-1358. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9306.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed (571) 272-1700.


Ngoc-Yen M. Nguyen
Primary Examiner
Art Unit 1754

nmn
April 19, 2004